

REMARKS

In the Official Action, the Examiner rejected claims 1-10 under the second paragraph of 35 U.S.C. §112 as allegedly being indefinite with respect to the definitions within various sets of parentheses. The Examiner additionally rejected claims 1, 3, 5 and 8-10 as being anticipated by Parfondry et al., WO 01/07521, and rejected the remaining claims under 35 U.S.C. §103(a) over Parfondry et al. alone for claims 2 and 4 and in view of Falke et al., U.S. Patent No. 6,087,410, for claims 6 and 7.

By the present Amendment, all of the parentheses enclosing certain definitions have been removed in both the specification and claims in order to remove any question as to whether such definitions are to be provided weight. The specification has also been revised to remove the "[Formula]" designations removed from the claims in the Preliminary Amendment. In addition, claim 1 has been amended to recite polyols (B) and (C) with the further provision that the ratio of polyols (B), (C) and (D) is 100 parts by weight and claim 2 has been canceled without prejudice or disclaimer. Finally, the syntax of "an organic polyisocyanates" has been corrected.

Applicants respectfully maintain that the claims now of record fully meet the rejection under 35 U.S.C. §112. However, before discussing the reasons why the claims are also patentable over the cited prior art, applicants believe that a discussion of the present invention and the advantages which can be obtained therefrom is in order. As discussed in greater detail in the specification and as now recited in claim 1, one aspect of the present invention relates to a flexible polyurethane foam obtained by contacting a polyol composition (A) comprising 0.5 to 3 parts by weight of a polyetherpolyol (polyol (D)) having a defined amine value and

a defined hydroxyl value that is produced by the addition of an alkylene oxide to at least one amine compound represented by defined formulas (I) and (II). The polyol composition additionally comprises 0 to 99.5 parts by weight of defined polyol (B) and 0 to 99.5 parts by weight of defined polyol (C) with the polyols being in such a ratio that the sum is 100 parts by weight. Such polyol composition is contacted with an organic polyisocyanate. Claim 4 recites the polyol composition, *per se*, using the same definitions and amounts.

The defined polyol composition enables a flexible polyurethane foam to be obtained that can exhibit reduced volatile amine emission and which has excellent characteristics that make the foam particularly suitable for seat pads and sound absorbing materials for automobiles. The advantages which can be obtained in accordance with the present invention are illustrated in the Examples that start on page 25 and particularly the Tables starting on page 33. In this respect, it will be noted from a comparison of Examples 1, 2 and 4, on one hand, and Comparative Example 7 on the other, that when the amount of defined polyol (D) is greater than the range of 0.5 to 3 parts by weight recited in claims 1 and 4, an inferior product exhibiting sink marks at the central portion of the molded product was obtained.

Parfondry et al. does not disclose or suggest any aspect of the presently claimed invention. As the Examiner has recognized in the Official Action, Parfondry et al. does not teach a polyol composition or a polyurethane foam prepared from a polyol composition that contains defined polyol (D) in an amount of 0.5 to 3 parts by weight based on the sum of polyol (B), polyol (C) and polyol (D) in an amount of 100 parts by weight. Instead, Parfondry et al. discloses that polyol b3 (the polyol relied on by the Examiner to meet polyol (D)), is present in an amount of 5 to 50%. Polyol b3, which is discussed in greater detail on page 8 of the document, is an amine-

initiated reaction of polyoxypropylene with exemplary amine initiators being 4, 4'-diphenylmethanediamine and isomers and oligomers thereof, aniline, toluenediamine and its isomers and oligomers, triethanolamine, 1-(2-aminoethyl)piperazine, diethylenetriamine, triethylenetetraamine, diethanolamine, monoethanolamine and 2-(2-aminoethoxy)ethanol.

Parfondry et al. further discloses on page 8 that one particular example of polyol b3 is triethanolamine-initiated polyoxypropylene. Furthermore, page 9 of the document states that the amount of polyol b3 is 5-50%, preferably more than 20% by weight and more preferably 20-20% by weight. Thus, as set forth on in the Table of examples on page 15, polyol C (which is the aforementioned triethanolamine-initiated polyoxypropylene) is present in amounts ranging from 20 to 40% by weight.

Based on a proper understanding of the present invention and the advantages which can be obtained therefrom, as well as the fair teachings of Parfondry et al., those of ordinary skill in the art will recognize that the claims now of record are patentable in all regards. Without improper resort to applicants' own specification, the teachings of Parfondry et al. would not lead to a polyol (D) which is produced by the addition of an alkylene oxide to at least one amine compound selected from the amine compounds represented by formulas (I) and (II). Indeed, of the list provided on page 8 of Parfondry et al., only one of the amine compounds meets the definition of formula (I) or formula (II) of claims 1 and 4. In this respect, the illustrative triethanolamine-initiated polyoxypropylene specifically identified in Parfondry et al. and used in the Examples does not meet polyol (D) of the present invention.

Parfondry et al. would further teach away from the present invention by requiring 5-50% by weight of polyol b3, more preferably 20-40% by weight. It is again noted that all of the illustrative examples in Parfondry et al. contain polyol b3 in

an amount of 20-40% by weight. The Examiner has attempted to explain this substantial difference away by referring to the potential presence of other polyol and by referring to the decision of *In re Aller* on pages 6 and 9 of the Action.

Applicants respectfully maintain that each of these positions is incorrect based on the claims and facts of the present application. As noted above, the amount of polyol (D) is 0.5 to 3 parts by weight based on the total amount of defined polyols (B), (C) and (D). Similarly, as specifically stated on page 3 of Parfondry et al., the amounts of polyols b1, b2 and b3 is based on the combined weights of b1, b2 and b3. Since the Examiner has relied on polyols b1 and b2 in order to meet polyols (B) and/or (C), the presence of an additional polyol outside the definitions of polyols b1, b2 and b3 would not affect the amount of polyol b3 relative to the total amounts of polyols b1, b2 and b3. Furthermore, the *Aller* decision is inapplicable in the present situation where the claimed amount of polyol (D) is not only outside the preferred range set forth in Parfondry et al. in which each and every exemplified amount exists, but it is also outside even the general range taught by the document. Furthermore, as shown in Comparative Example 7 of the present application, in the context of the present invention, an amount of polyol (D) greater than that recited in the claims of record has a substantial effect on the results. This effect is nowhere recognized by Parfondry et al., which further detracts from the applicability of the *Aller* decision.

With respect to the additional reliance on Falke et al., this patent was relied on to show the wet heat compression set ratio and density recited in dependent claims 6 and 7. Although applicants do not concede the propriety of the combination of Falke et al. with Parfondry et al., even if the combination has a proper basis, it still would not overcome the stated substantial deficiencies of Parfondry et al. Thus, the


claims of record are also patentable over this hypothetical combination of documents.

For all of the reasons set forth above, applicants respectfully submit that the claims of record fully comply with the provisions of 35 U.S.C. §112 and are patentable over the cited prior art particularly in view of the technical evidence that has been provided. Accordingly, reconsideration and allowance of the present application are respectfully requested.

Should the Examiner have any questions concerning the present application, the Examiner is invited to contact the undersigned attorney at the number provided below.

Respectfully submitted,

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Date: January 21, 2009